

## **Publications (in bold typeface):**

### **J. A. Rice, *A Prototype Array-Element Localization Sonobuoy*, NOSC Technical Report 1365, December 1990**

H. P. Bucker, J. A. Rice and N. O. Booth, "A Reverberant Undersea Model for Bottom-Limited Environments," in *Ocean Reverberation*, pp. 167-174, Kluwer Academic Publishers, edited by D. D. Ellis, J. R. Preston and H. G. Urban, 1993

N. O. Booth, P. A. Baxley, J. A. Rice, P. W. Schey, W. S. Hodgkiss, G. L. D'Spain, and J. J. Murray, "Source Localization with Broadband Matched-Field Processing in Shallow Water", *IEEE J. Oceanic Eng.*, Vol. 21, pp. 402-412, October 1996

J. A. Rice and K. E. Rogers, "Directions in littoral undersea wireless telemetry," *Proc. TTCP Subgroup-G Symposium on Shallow-Water Undersea Warfare*, Halifax, Nova Scotia, Canada, Vol. 1, pp. 161-172, October 1996

**J.A. Rice, "Acoustic signal dispersion and distortion by shallow undersea transmission channels," Proc. NATO SACLANT Undersea Research Centre Conf. on High-Freq. Acoust. in Shallow Water, Lerici, Italy, pp. 435-442, July 1997**

K.E. Scussel, J.A. Rice and S. Merriam, "A new MFSK acoustic modem for operation in adverse underwater channels," *Proc. IEEE Oceans'97 Conf.*, Halifax, Nova Scotia, Canada, Vol. 1, pp. 247-254, October 1997

M.D. Green and J.A. Rice, "Error-correction coding for communication in adverse underwater channels," *Proc. IEEE Oceans'97 Conf.*, Halifax, Nova Scotia, Canada, Vol. 2, pp. 854-861, October 1997

J.A. Rice, R.C. Shockley, V.K. McDonald, M.D. Green and J.G. Proakis, "Long-range signaling in shallow ocean transmission channels," 134<sup>th</sup> Meeting of the Acoustical Society of America, San Diego CA, *J. Acoust. Soc. Am.*, Vol. 102, p. 3118, November 1997

V.K. McDonald, R.C. Shockley, J.A. Rice and M.D. Green, "Probe signals for obtaining impulse response of doubly spread channels," 134<sup>th</sup> Meeting of the Acoustical Society of America, , San Diego CA, *J. Acoust. Soc. Am.*, Vol. 102, p. 3118, November 1997

R.C. Shockley, J.A. Rice and V.K. McDonald, "Spreading, coherence, fading, and noise in shallow-water channels," 134<sup>th</sup> Meeting of the Acoustical Society of America, San Diego CA, *J. Acoust. Soc. Am.*, Vol. 102, p. 3118, November 1997

M.D. Green and J.A. Rice, "Noncoherent communication for adverse channels," 134<sup>th</sup> Meeting of the Acoustical Society of America, San Diego CA, *J. Acoust. Soc. Am.*, Vol. 102, pp. 3118-3119, November 1997

M.D. Green and J.A. Rice, "Robust communications in adverse channels," *Proc. Oceanology International '98 Conf.*, Brighton UK, Vol. 2, pp. 271-283, March 1998

M.D. Green and J.A. Rice, "Low-probability-of-detection communications in adverse underwater acoustic channels," *Proc. 16<sup>th</sup> Intl. Congr. Acoust. and 135<sup>th</sup> Mtg. Acoust. Soc. Am.*, pp. 307-308, Seattle WA, June 1998

R.C. Shockley, J.A. Rice, V.K. McDonald, M.D. Green, J.G. Proakis, and J. Newton, "Observations of coherence time and amplitude fluctuations in a shallow-water acoustic communications channel," *Proc. 16<sup>th</sup> Intl. Congr. Acoust. and 135<sup>th</sup> Mtg. Acoust. Soc. Am.*, pp. 303-304, Seattle WA, June 1998

M. D. Green and J. A. Rice, "Handshake protocols for underwater communications networks," *Proc. IEEE OCEANS'98 Conf.*, Vol. 1, pp. 487-491, Nice France, September 1998

V. K. McDonald, J. A. Rice and C. L. Fletcher, "An underwater communication testbed for telesonar RDT&E," *Proc. IEEE OCEANS'98 Conf.*, Vol. 2, pp. 639-643, Nice France, September 1998

M. D. Green, J. A. Rice and S. Merriam, "Underwater acoustic modem configured for use in a local area network," *Proc. IEEE OCEANS'98 Conf.*, Vol. 2, pp. 634-638, Nice France, September 1998

M. Stojanovic, J. G. Proakis, J. A. Rice and M. D. Green, "Spread-spectrum methods for underwater acoustic communications," *Proc. IEEE OCEANS'98 Conf.*, Vol. 2, pp. 650-654, Nice France, September 1998

P. A. Baxley, H. P. Bucker and J. A. Rice, "Shallow-water acoustic communications channel modeling using three-dimensional Gaussian beams," *Proc. MTS Ocean Community Conf.*, Vol.2, pp. 1022-1026, Baltimore MD, November 1998

- V. K. McDonald, J. A. Rice and C. L. Fletcher, "Telesonar testbed engineering and sea trials," *Proc. MTS Ocean Community Conf.*, Vol.2, pp. 1001-1006, Baltimore MD, November 1998
- M. D. Green, J. A. Rice and S. Merriam, "Implementing an undersea wireless network using COTS acoustic modems," *Proc. MTS Ocean Community Conf.*, Vol.2, pp. 1027-1031, Baltimore MD, November 1998
- J. G. Proakis, M. Stojanovic and J. A. Rice, "Design of a communication network for shallow-water acoustic modems," *Proc. MTS Ocean Community Conf.*, Vol. 2, pp. 1150-1159, Baltimore MD, November 1998
- J. A. Rice and M. D. Green, "Adaptive modulation for undersea acoustic modems," *Proc. MTS Ocean Community Conf.*, Vol. 2, pp. 850-855, Baltimore MD, November 1998
- J. A. Rice and R. C. Shockley, "Battery -energy estimates for telesonar modems in a notional undersea network," *Proc. MTS Ocean Community Conf.*, Vol. 2, pp. 1007-1015, Baltimore MD, November 1998
- P. A. Baxley, H. P. Bucker and J. A. Rice, "First results from an acoustic-communications transmission model using 3D Gaussian beams and quadrature detection," 137<sup>th</sup> meeting of the Acoustical Society of America and 2<sup>nd</sup> Convention of the European Acoustics Association, Berlin Germany, *J. Acoust. Soc. Am.*, Vol. 105, No. 2, Pt. 2, p. 1364, February 1999
- J.A. Rice, V.K. McDonald, R.C. Shockley, M.D. Green, J.G. Proakis, and M. Stojanovic, "Telesonar channel estimation and adaptation," 137<sup>th</sup> meeting of the Acoustical Society of America and 2<sup>nd</sup> Convention of the European Acoustics Association, Berlin Germany, *J. Acoust. Soc. Am.*, Vol. 105, No. 2, Pt. 2, p. 1364, February 1999
- V.K. McDonald, J.A. Rice, and M.D. Green, "Channel characterization using FSK waveforms," 137<sup>th</sup> meeting of the Acoustical Society of America and 2<sup>nd</sup> Convention of the European Acoustics Association, Berlin Germany, *J. Acoust. Soc. Am.*, Vol. 105, No. 2, Pt. 2, p. 1365, February 1999
- M.D. Green and J.A. Rice, "Statistics-governed channel simulator," 137<sup>th</sup> meeting of the Acoustical Society of America and 2<sup>nd</sup> Convention of the European Acoustics Association, Berlin Germany, *J. Acoust. Soc. Am.*, Vol. 105, No. 2, Pt. 2, p. 1365, February 1999
- V.K. McDonald and J.A. Rice, "Telesonar testbed--advances in undersea wireless communications," *Sea Technology*, Vol. 40, No. 2, pp. 17-23, February 1999
- J.A. Rice and P.A. Baxley, "Telesonar channel models," *SSC San Diego In-House Laboratory Independent Research 1998 Annual Report*, TD 3049, pp. 72-75, April 1999
- J.A. Rice, V.K. McDonald, M.D. Green, and D. Porta, "Adaptive modulation for undersea acoustic telemetry," *Sea Technology*, Vol. 40, No. 5, pp. 29-36, May 1999**
- P. A. Baxley, H. P. Bucker, J. A. Rice, and M. D. Green "Acoustic communication channel modeling for the Baltic," *Proc. IEEE Oceans'99 Conf.*, Seattle WA, September 1999
- V.K. McDonald, J.A. Rice, M.B. Porter, P.A. Baxley, "Performance measurements of a diverse collection of undersea acoustic communication signals," *Proc. IEEE Oceans'99 Conf.*, Seattle WA, September 1999
- K. Raysin, J.A. Rice, E. Dorman, and S. Matheny, "Telesonar network modeling and simulation," *Proc. IEEE Oceans'99 Conf.*, September 1999
- E.M. Sozer, J.G. Proakis, M. Stojanovic, J.A. Rice, R.A. Benson, M. Hatch, "Direct-sequence spread-spectrum-based modem for underwater acoustic communication and channel measurements," *Proc. IEEE Oceans'99 Conf.*, Seattle WA, September 1999
- M. D. Green and J. A. Rice, "Channel-tolerant FH-MFSK acoustic signaling for undersea communications and networks," *IEEE J. Oceanic Eng.*, vol. 25, no. 1, pp. 28-39, January 2000
- P. S. Bogden, J. A. Rice, et al, "Front-resolving observational network with telemetry," *Proc. AGU Ocean Sciences Mtg*, special session on coastal ocean dynamics and prediction, San Antonio, TX, January 24-28, 2000
- J.A. Rice and P.A. Baxley, "Telesonar channel models," *SSC San Diego In-House Laboratory Independent Research 1998 Annual Report*, April 2000
- M. B. Porter, V. K. McDonald, J. A. Rice, and P. A. Baxley, "Relating modem performance to the channel properties," *Proc. 139<sup>th</sup> Mtg. of Acoustical Society of America*, Atlanta, GA, May 30 – June 3, 2000
- M. B. Porter, V. K. McDonald, J. A. Rice, P. A. Baxley, "Relating the Channel to Acoustic Modem Performance," *Proc. European Conf. Underwater Acoustics*, Lyons, France, July 2000

- J. A. Rice, R. Creber, C. Fletcher, P. A. Baxley, K. E. Rogers, V. K. McDonald, C. D. Rees, M. Wolf, S. Merriam, R. Mehio, J. Proakis, K. F. Scussel, D. Porta, J. Baker, J. E. Hardiman, M. D. Green, "Evolution of Seaweb Underwater Acoustic Networking," *Proc. IEEE Oceans Conf.*, pp. 2007-2018, Providence, RI, Sept. 11-14, 2000
- D. Codiga, J. A. Rice, P. Bogden, "Real-Time Delivery of Subsurface Coastal Circulation Measurements from Distributed Instruments Using Networked Acoustic Modems," *Proc. IEEE Oceans Conf.*, pp. 575-582, Providence, RI, Sept. 11-14, 2000
- N. Fruehauf and J. A. Rice, "System Design Aspects of a Steerable Directional Acoustic Communications Transducer for Autonomous Undersea Systems," *Proc. IEEE Oceans Conf.*, pp. 565-674, Providence, RI, Sept. 11-14, 2000
- M. B. Porter, V. K. McDonald, P. A. Baxley, J. A. Rice, "SignalEx: Linking Environmental Acoustics with the Signaling Schemes," *Proc. IEEE Oceans Conf.*, pp. 595-600, Providence, RI, Sept. 11-14, 2000
- A. L. Butler, J. L. Butler, W. L. Dalton, and J. A. Rice, "Multimode Directional Telesonar Transducer," *Proc. IEEE Oceans Conf.*, pp. 1289-1292, Providence, RI, Sept. 11-14, 2000
- J. A. Rice, "Telesonar Signaling and Seaweb Underwater Wireless Networks," *Proc. NATO Symposium on New Information Processing Techniques for Military Systems, Istanbul, Turkey, Oct. 9-11, 2000***
- A. L. Butler, J. L. Butler, J. A. Rice, "A Low-Frequency Multimode Directional Telesonar Transducer," *Proc. ONR Directional Acoustic Sensors Workshop*, Newport, RI, April 17-18, 2001
- D. Porta, J. A. Rice, D. Codiga, "Acoustic Modem Multi-Access Networking for Data Acquisition," *Sea Technology*, Vol. 42, No. 5, pp. 10-14, May 2001
- M. B. Porter, V. K. McDonald, P. A. Baxley, and J. A. Rice, "High-Frequency Acoustic Propagation and Modeling for Acoustic Communications," *Proc. Int'l. Conf. On Theoretical and Computational Acoustics*, Beijing, China, May, 2001
- J. A. Rice, R. K. Creber, C. L. Fletcher, P. A. Baxley, D. C. Davison, and K. E. Rogers, "Seaweb Undersea Acoustic Nets," *SSC San Diego Biennial Report*, 2001
- P. A. Baxley, H. Bucker, V. K. McDonald, J. A. Rice, and M. B. Porter, "Shallow-Water Acoustic Communications Channel Modeling Using Three-Dimensional Gaussian Beams," *SSC San Diego Biennial Report*, July 2001
- M. B. Porter, V. K. McDonald, P. A. Baxley, and J. A. Rice, "Acoustic Signaling Performance in Diverse Shallow-Water Environments," *Proc. International Conference on Acoustics*, Rome, Italy, Sept 2-7, 2001
- J. A. Rice, C. L. Fletcher, R. K. Creber, J. E. Hardiman, and K. F. Scussel, "Networked Undersea Acoustic Communications Involving a Submerged Submarine, Deployable Autonomous Distributed Sensors, and a Radio Gateway Buoy Linked to an Ashore Command Center," *Proc. UDT HAWAII 2001 Undersea Defence Technology*, Waikiki, HI, Oct 30 – Nov 1, 2001**
- C. L. Fletcher, J. A. Rice, R. K. Creber, and D. L. Codiga, "Undersea Acoustic Network Operations through a Database-Oriented Server/Client Interface," *Proc. IEEE Oceans 2001 Conf.*, November 2001
- R. K. Creber, J. A. Rice, P. A. Baxley, and C. L. Fletcher, "Performance of Undersea Acoustic Networking Using RTS/CTS Handshaking and ARQ Retransmission," *Proc. IEEE Oceans 2001 Conf.*, November 2001
- J. G. Proakis, E. M. Sozer, J. A. Rice, and M. Stojanovic, "Shallow Water Acoustic Networks," *IEEE Communications Magazine*, Vol. 39, No. 11, pp. 114-119, November 2001
- J. M. Stevenson, J. A. Rice, D. C. Davison, "A Distributed, Off-Board Sensor and Communications System for Monitoring Access to Territorial Waters," *Journal of Underwater Acoustics*, 2002 (submitted)
- D. L. Codiga, J. A. Rice, P. A. Baxley, "Networked Acoustic Modems for Real-Time Data Delivery from Distributed Moorings in the Coastal Ocean: Initial System Development and Performance," *Journal of Atmospheric and Oceanic Technology*, 2002 (submitted)